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The impact of a microbial sealant to reduce surgical site infection reduction in cardiac surgery

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Background: Surgical site infection (SSI) do have a serious impact on patients undergoing cardiac surgery. This study was performed to prove if additional preoperative care by using a microbial sealant can reduce surgical site infection.

Methods: To improve preoperative surgical care two groups of patients were identified during thes same period of time. Between January and August 2007, a control group (n = 718), receiving standard institutional preoperative preparation and between January and August 2008,the InteguSeal group (n = 780) who received additionally a microbial sealant prior to sternotomy. Both groups were evaluated by patients characteristics and a pre-operative risk scores. End-point of this study was freedom from SSI.

Results: Follow up was 100% completed. The values of the pre-operative risk score of the control group and the InteguSeal group was significantly different in both groups, respectively 9.7. ± 1.5 and 10.1 ± 1.8 (p = 0.001).

The clinical end-point, however showed a highly significant decrease of SSI in the InteguSeal group 1.4% (n = 11) compared with the control group 4.3% (n = 31), (p < 0.003) althrough they were at higher risk for SSI.

Conclusion: Thus, the pre-operative risk score for patients of the InteguSeal group was significant higher compared to the control group, there was a highly significant reduction of surgical site infections seen.

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The global burden of infective endocarditis: Methodology for a systematic review to assess disease burden and trends in 21 world regions for 1990-2005

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Background: Infective endocarditis(IE) is an important contributor to mortality and morbidity worldwide. However, previous work in the global burden of diseases, injuries,and the methdology for a comprehensive assessment of IE burden trends in 21 world regions for 1990-2005 as part of the current GBD 2005 effort.

Methods: A systematic review of published studies, surveys,and other data sources is being conducted in order to assess the global epidemiology of IE and related disabling sequelae. Cases of IE were defined according to the Duke, modified Duke, Steckelberg,Von Reyn and modified Von Reyn. A simplified model was used for the systematic review and it included cure,valve surgery,stroke, and death.Electronic databases included.

MEDLINE,EMBASE,LILACK, KoreaMED, AMED, EXTRAMED, scopus and web of science.Only population based studies were used to estimte the incidence.

Results: We identified 121 studies: 21 population-based,21 multicenter studies, and 79 hospital cohorts. Data originated from 40 countries and 2 international collaborations. Only 18 population based studies reported on the incidence of IE/100,000 in 9 countries.Australia(3), France (2.2,3), Denmark(2.4,2.7),Italy (3.6), Netherlands(1.5,9.6), Sweden(0.39,6.2), Tunisia(5.5), UK(1.6,2.3), USA(1.7,3.8,4.2,4.95,11.6). Valve replacement was performed on 30%(mean) and 29%(median) of IE cases.Stroke occured in 15%(mean)and 14%(median).Mortality occured in 23%(mean) and 21%(median) of cases. Bias secondary to incomplete data, non representative populations, and missing data for national or regional populations remain important challenge. Specific strategies to address this limitation are ongoing and include (1) translating non-English studies (2) searching the gray literature; and (3) contacting IE experts in world regions with limited or no data.

Conclusion: A comprehensive and systematic assessment of the global burden and trends in IE mortality and disability using a rigorous methodology is being conducted. IE is a relatively uncommon disease but is associated with significant morbidity and mortality. Completion of this effort will add substantively to the summary estimates of cardiovascular mortality and disability.

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Psoas abscess in Korea: Etiology, clinical features, treatment and outcome

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Background: Abscess of the psoas muscle is a rare disease. Because of nonspecific presentation, it is difficult to diagnosis. There is a wide spectrum in etiology, time to diagnosis, and therapeutic options. This study is to describe the etiology, clinical features, treatment, and outcome of psoas abscess from multicenter in Korea.

Methods: We retrospectively reviewed the medical records of patients with psoas muscle abscess who were admitted to three university hospitals in Korea over 10 years.

Results: A total of 87 patients (46 male, 41 female) were included in this study. The mean age was 56.3 ± 18.5 years old. The mean duration of hospitalization was 31.9 ± 24.37